CPC COOPERATIVE PATENT CLASSIFICATION

B61H BRAKES OR OTHER RETARDING APPARATUS PECULIAR TO RAIL VEHICLES
ARRANGEMENTS OR DISPOSITIONS OF BRAKES OR OTHER RETARDING APPARATUS IN RAIL VEHICLES

(electrodynamic braking of vehicles B60L , in general H02K ; arrangements in rail vehicles for adjusting wheel-braking force to meet varying vehicular or permanent-way conditions B60T 8/00; transmitting braking action from initiating means to ultimate brake actuator with power assistance or drive, brake systems incorporating such transmitting means, e.g. air-pressure brake systems, B60T 13/00 to B60T 17/00; brakes per se F16D)

Guide heading:

B61H 1/00 **Applications or arrangements of brakes with a braking member or members co-operating with the periphery of the wheel rim, a drum, or the like** (self-applying brakes B61H 11/02; combinations of different types of brakes B61H 11/14; wheels B60B)

B61H 1/003 . {with an actuator directly acting on a brake head }

B61H 1/006 . {Band brakes }

B61H 3/00 **Applications or arrangements of brakes with an outwardly movable braking member or members co-operating with the inner surface of a drum or the like** (self-applying brakes B61H 11/02; combinations of different types of brakes B61H 11/14)

B61H 5/00 **Applications or arrangements of brakes with substantially radial braking surfaces pressed together in axial direction, e.g. disc brakes** (self-applying brakes B61H 11/02; combinations of different types of brakes B61H 11/14; {discs adapted for mounting on the wheel of a railway vehicle F16D 65/124 })

B61H 7/00 **Brakes with braking members co-operating with the track** (positive railway stops or track brakes secured to permanent way B61K 7/00)

B61H 7/02 . Scotch blocks, skids, or like track-engaging shoes
B61H 7/04 . . attached to railway vehicles
B61H 7/06 . . . Skids
B61H 7/08 . . . . electromagnetically operated
B61H 7/083 . . . . . {working with eddy currents }
B61H 7/086 . . . . . {Suspensions therefor }
B61H 7/10 . . unattached

B61H 7/12 . Grippers co-operating frictionally with tracks

B61H 9/00 **Brakes characterised by or modified for their application to special railway**

systems or purposes

B61H 9/003 . {for shunting operation or for narrow gauge trains }

B61H 9/006 . {Brakes for locomotives }

B61H 9/02 . for aerial, e.g. rope, railways

B61H 9/04 . for preventing or controlling movement in one direction or, selectively, in either direction

B61H 9/06 . for storing energy during braking action

B61H 11/00 **Applications or arrangements of braking or retarding apparatus not otherwise provided for**
Combinations of apparatus of different kinds or types

B61H 11/005 . {in combination with rail sanding, door opening or the like }

B61H 11/02 . of self-applying brakes

B61H 11/04 . . with brake-applying force derived from rotation of axle

B61H 11/06 . of hydrostatic, hydrodynamic, or aerodynamic brakes

B61H 11/08 . . comprising a pump or the like circulating fluid, braking being effected by throttling of the circulation

B61H 11/10 . . Aerodynamic brakes with control flaps, e.g. spoilers, attached to the vehicles

B61H 11/14 . Combinations of different types of brakes, e.g. brake blocks acting on wheel-rim combined with disc brakes

B61H 11/16 . Removable self-contained brake units

B61H 13/00 **Actuating rail vehicle brakes** ({actuators directly acting on a brake head B61H 1/003; } self-applying brakes B61H 11/02; wear-compensating mechanisms B61H 15/00)

B61H 13/005 . {Spring actuation }

B61H 13/02 . Hand or other personal actuation

B61H 13/04 . . by mechanisms incorporating toothed gearing

B61H 13/06 . Actuating or influencing the brakes by backward pressure of buffers or coupling gear, e.g. buffer brakes

B61H 13/20 . Transmitting mechanisms (wear-compensating mechanisms B61H 15/00)

B61H 13/22 . . for braking a single wheel or wheels at one side only, e.g. for locomotives or motor railcars

B61H 13/24 . . for cars with two axles or bogies with two axles and braking cylinder(s) for each bogie, the mechanisms at each side being interconnected

B61H 13/26 . . for cars or bogies with more than two axles or bogies, the mechanisms at each side being interconnected

B61H 13/28 . . with variable leverage or mechanical advantage to obtain quick take-up

B61H 13/30 . . adjustable to take account of variation of vehicle weight (automatic adjustment B60T 8/18)

B61H 13/32 . . . by varying brake lever leverage

B61H 13/34 . Details

B61H 13/36 . . Beams
Suspension thereof

B61H 13/38 . . Suspension or transmitting mechanisms (B61H 13/36 takes precedence)

B61H 15/00 Wear-compensating mechanisms, e.g. slack adjusters

B61H 15/0007 . {mechanical and self-acting in one direction }

B61H 15/0014 . . {by means of linear adjustment }

B61H 15/0021 . . . {with cams, by friction or clamping }

B61H 15/0028 . . . {with screw-thread and nut }

B61H 15/0035 . {mechanical and self-acting in both directions }

B61H 15/0042 . . {by means of linear adjustment }

B61H 15/005 . . . {with cams, by friction or clamping }

B61H 15/0057 . . . {with screw-thread and nut }

B61H 15/0064 . {mechanical and non-automatic }

B61H 15/0071 . . {by means of linear adjustment }

B61H 15/0078 . . . {with cams, by friction or clamping }

B61H 15/0085 . . . {with screw-thread and nut }

B61H 15/0092 . {hydraulic }